

CLAIMS

What is claimed is:

1. A furnace comprising:
a combustion chamber;
a burn pot within the combustion chamber further comprising:
a sidewall; and
a movable floor.
2. The furnace of claim 1 wherein the movable floor is movable between a first position and a second position.
3. The furnace of claim 1 wherein the movable floor is movable between a first position and a second position, the movable floor having an opening therein having a cross-sectional area at least as large as the cross-sectional area within the sidewall and proximate the movable floor.
4. The furnace of claim 1 wherein the movable floor is movable between a first position where the movable floor has a grill portion therein, the grill portion positioned near an end of the burn pot, and a second position where the movable floor has an opening therein.
5. The furnace of claim 1 wherein the sidewall includes openings therein for directing air entering the burn pot.
6. The furnace of claim 1 further comprising an actuator for moving the movable floor.
7. The furnace of claim 1 further comprising a plate translatable through an internal volume of the burn pot.

8. The furnace of claim 7 wherein the plate has an opening therein with an area at least as large as a cross-sectional area of the burn pot.
9. The furnace of claim 7 wherein the plate is translatable between a first position and a second position, wherein the plate has an opening therein with an area at least as large as a cross-sectional area of the burn pot when in a first position and includes an area capable of covering the cross-sectional area of the burn pot when the plate is in a second position.
10. The furnace of claim 7 wherein the plate further includes a ramp positioned near the opening in the plate.
11. The furnace of claim 71 further comprising an actuator for moving the translatable plate.
12. The furnace of claim 7 further comprising an actuator for moving the translatable plate and the movable floor substantially simultaneously.
13. A burn pot comprising:
 - a first sidewall portion;
 - a second sidewall portion; and
 - a translatable plate interposed between the first sidewall portion and the second sidewall portion, the translatable plate capable of at least two positions, wherein the plate has an opening therein corresponding substantially to a cross sectional area of an inside area of the first sidewall portion or the second sidewall portion.
14. The burn pot of claim 13 wherein the translatable plate includes a portion capable of separating the first sidewall portion from the second sidewall portion.

15. The burn pot of claim 13 wherein the translatable plate includes a portion capable of separating the first sidewall portion from the second sidewall portion, wherein the portion includes a plurality of grill openings therein.
16. The burn pot of claim 13 wherein the translatable plate includes an actuator for translating the translatable plate.
17. The burn pot of claim 13 further comprising a movable floor.
18. The burn pot of claim 17 wherein the movable floor wherein the floor includes a grill in a first area and has an opening therein in a second area.
19. The burn pot of claim 18 further comprising an actuator for moving the movable floor between at least a first position and a second position, wherein the grill is positioned near an end of the second portion of the burn pot when in a first position and wherein the opening is positioned near an end of the second portion of the burn pot when in a second position.
20. The burn pot of claim 17 further comprising an actuator for moving both the movable floor and the translatable plate.
21. The burn pot of claim 20 wherein the actuator for moves the movable floor and the translatable plate substantially simultaneously.
22. The burn pot of claim 13 further comprising an igniter in fluid communication with the burn pot.
23. A method comprising:
combusting a fuel in a burn pot;
forming an ash column within the burn pot; and
removing a portion of the ash column.

24. The method of claim 23 wherein removing a portion of the ash column includes cutting a portion of the ash column.

25. The method of claim 23 wherein removing a portion of the ash column includes removing the portion of the ash column that is more completely burned than another portion of the ash column.

26. The method of claim 23 wherein combusting the fuel in the burn pot includes adding fuel to the top of the ash column and wherein removing a portion of the ash column includes removing a bottom portion of the ash column.

27. The method of claim 23 wherein removing a portion of the ash column includes removing a portion of the ash column opposite from the end of the ash column that receives fuel.

28. The method of claim 23 wherein removing a portion of the ash column includes removing the portion of the ash column during combustion of at least a portion of the ash column.